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APPLICATION NO. FILING DATE		FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.			
10/624,475		07/23/2003	Warren Hugh Finlay	364-1us	7427		
20212	7590	12/01/2005		EXAM	EXAMINER		
THOMPSO		BERT CAL PARK TWO	GEORGE, K	GEORGE, KONATA M			
2121 CRYS	-		ART UNIT	PAPER NUMBER			
ARLINGTO	ON, VA	22202	1616				
				DATE MAILED: 12/01/200	DATE MAILED: 12/01/2005		

Please find below and/or attached an Office communication concerning this application or proceeding.

		Applicati	on No.	Applicant(s)					
Office Action Summary			75	FINLAY ET AL.					
				Art Unit					
		Konata M	<del>-</del>	1616					
Period fo	The MAILING DATE of this communication or Reply	appears on th	e cover sheet with the c	orrespondence ac	ldress –				
THE I - External after - If the - If NO - Failu Any	ORTENED STATUTORY PERIOD FOR RE MAILING DATE OF THIS COMMUNICATIOnsions of time may be available under the provisions of 37 CFF SIX (6) MONTHS from the mailing date of this communication period for reply specified above is less than thirty (30) days, a period for reply is specified above, the maximum statutory per re to reply within the set or extended period for reply will, by streply received by the Office later than three months after the med patent term adjustment. See 37 CFR 1.704(b).	N. R 1.136(a). In no ev reply within the sta riod will apply and w atute, cause the app	ent, however, may a reply be tim utory minimum of thirty (30) days ill expire SIX (6) MONTHS from lication to become ABANDONEI	nely filed s will be considered timel the mailing date of this c D (35 U.S.C. § 133).					
Status									
1)	Responsive to communication(s) filed on _	·							
2a) ☐ This action is <b>FINAL</b> . 2b) ☑ This action is non-final.									
3)	3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is								
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.									
Dispositi	on of Claims								
4)⊠	4)⊠ Claim(s) <u>1-13</u> is/are pending in the application.								
-	4a) Of the above claim(s) is/are withdrawn from consideration.								
5)	5) Claim(s) is/are allowed.								
6)⊠	☑ Claim(s) <u>1-13</u> is/are rejected.								
7)	Claim(s) is/are objected to.								
8)	Claim(s) are subject to restriction an	d/or election r	equirement.						
Applicati	on Papers								
9) 🔲 🤈	The specification is objected to by the Exam	niner.							
10)🖾	10)⊠ The drawing(s) filed on <u>23 July 2003</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.								
	Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).								
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).									
11) 🔲	The oath or declaration is objected to by the	Examiner. No	ote the attached Office	Action or form PT	TO-152.				
Priority u	ınder 35 U.S.C. § 119								
12)🛛	Acknowledgment is made of a claim for fore  ☐ All b) ☐ Some * c) ☑ None of:			-(d) or (f).					
<ul> <li>1. ☐ Certified copies of the priority documents have been received.</li> <li>2. ☐ Certified copies of the priority documents have been received in Application No</li> </ul>									
	<u> </u>		• • •		Stone				
	<ol> <li>Copies of the certified copies of the p application from the International Bur</li> </ol>	•		d in this National	Stage				
* See the attached detailed Office action for a list of the certified copies not received.									
Attachment	t(s)								
	e of References Cited (PTO-892)		4) Interview Summary	(PTO-413)					
2) D Notice	e of Draftsperson's Patent Drawing Review (PTO-948)		Paper No(s)/Mail Date  5) Notice of Informal Patent Application (PTO-152)						
	nation Disclosure Statement(s) (PTO-1449 or PTO/SB/ r No(s)/Mail Date	/08)	6) Other:	atent Application (PTC	J-10Z)				

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### **DETAILED ACTION**

Claims 1-13 are pending in this application.

### **Drawings**

1. The drawing(s) filed under 37 CFR 1.184 or 1.152 are accepted by the examiner.

#### Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on June 21, 2004 was noted and the submission is in compliance with the provisions of 37 CFR 1.97.

Accordingly, the examiner has considered the information disclosure statement.

# Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- 3. Claims 1 and 5 are rejected under 35 U.S.C. 102(a) as being anticipated by Maitra et al. (US 6,579,519 B2).

Maitra et al. discloses a preparation of nanoparticles comprising a drug, wherein the polymeric micelles nanoparticles are mixed with an alcoholic solution followed by lyophilizing the micelle to get a dry powder for subsequent use (col. 8, lines 38-49).

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4. Claims 1, 3-5 and 7-13 are rejected under 35 U.S.C. 102(a) as being anticipated by Edwards et al. (WO 03/043586 A2).

Edwards et al. discloses a process for formulating particles comprising a "feed solution" of "feed mixture" comprising nanoparticles and one or more additives that are fed to a spray dryer (page, 9, lines 9-12). Lines 13-24 teach that organic and aqueous solvents can be present in the mixture. Bioactive agents having therapeutic, diagnostic and prophylactic properties, nutraceutical agents, radioactive material i.e. by<sup>125</sup>l, <sup>131</sup>l, <sup>35</sup>S and <sup>3</sup>H, etc. (page 12, line 19 through page 16, lines 8). Page 22, lines 12-13 teach that the particles of the composition are suitable for pulmonary use. Page 23, lines 27-30 teach that the particles size is at least 5 microns.

# Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 5. Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards et al. (WO 03/043586 A2) as applied to claims 1 and 3-5 and 7-13 above.

Edwards et al. discloses a process for formulating particles comprising a "feed solution" of "feed mixture" comprising nanoparticles and one or more additives that are fed to a spray dryer (page, 9, lines 9-12). Lines 13-24 teach that organic and aqueous solvents can be present in the mixture. Bioactive agents having therapeutic, diagnostic

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and prophylactic properties, nutraceutical agents, radioactive material i.e. by <sup>125</sup>l, <sup>131</sup>l, <sup>35</sup>S and <sup>3</sup>H, etc. (page 12, line 19 through page 16, lines 8). Page 22, lines 12-13 teach that the particles of the composition are suitable for pulmonary use. Page 23, lines 27-30 teach that the particles size is at least 5 microns. A prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). The prior art does not teach breaking up the dried mixture.

While the prior art does not explicitly teach breaking up a dried mixture, in column 6, lines 52-56 teach a solvent evaporation of the particles while stirring. It is the position of the examiner that stirring the particle mixture while drying would prevent the particles from clumping. Therefore, it is the position of the examiner that it would have been obvious to one of ordinary skill in the art at the time the invention was made to break up the dried mixture of particles in any manner to facilitate the aerosol delivery of the particles to the lung.

#### Conclusion

6. Claims 1-13 are rejected.

### Telephone Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Konata M. George, whose telephone number is

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(571) 272-0613. The examiner can normally be reached from 8AM to 6:30PM Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Kunz, can be reached at (571) 272-0887. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8000 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.

Konata M. George

SREENI PADMANABHAN SUPERVISORY PATENT EXAMINER

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